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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
NEWMAN, MICHAEL A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/821,612

Applicant(s)

TONAMI, KAZUNARI

Examiner

MICHAEL A. NEWMAN

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/14/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

1. The amendment received on January 14th, 2008, has been entered.
2. In view of the amendment to the claims, the amendment of claims 1, 4, 9, 10 and 11 are acknowledged.

Response to Arguments

3. Applicant's arguments filed on January 14th, 2008 have been fully considered but they are not persuasive.
 - a. In pages 6 and 7 of the Remarks received on January 24th, 2008, with regards to the rejection of the independent claims 1 and 9 under 35 U.S.C. 102(e) over Nishikawa (U.S. Patent No. 6,836,565), "Nishikawa", Applicant's Representative submits that Nishikawa fails to teach the newly amended limitations of claims 1 and 9. In summary, Applicant's Representative submits that the newly amended claims require that the image data of the first information, added by the first information addition unit, and the image data added of the second information, added by the second information addition unit, are both related to perform[ing] the same first type of image processing. As correctly noted by Applicant's Representative Nishikawa determines a gamma correction value from reduced image data. Nishikawa first teaches that the reduced image data is stored directly in the image data (Nishikawa Col. 4 lines 9 - 18), but that, alternatively, a reduced image information can be stored in the image as a tag (Nishikawa Col. 6 lines 46 – 51). As noted by Applicant's

Representative the reduced image information is not the reduced image data but information used to generate a reduced image (Nishikawa Col. 6 lines 27 – 28).

At this point, it appears that since the reduced image data is used to perform gamma correction directly, and the reduced image information is used to generate the reduced image data, the two are not, as required by the claims, 'related to perform a first type of image processing'. However, considering the gamma correction as the first type of image processing, and the reduced image data as the information related such image processing, it is easy to see that Nishikawa is merely teaching two different information addition/extraction methods by which the information related to perform the first type of image processing can be achieved. In other words, in order to carry out gamma correction processing, Nishikawa can either obtain the reduced image data directly, or extract it by using the reduced image information. Therefore, the examiner respectfully insists that Nishikawa does teach first and second information addition units to add information related to perform a first type of image processing as required by claims 1 and 9.

b. In pages 7 and 8 of the Remarks, with regards to the rejection of the independent claims 4 and 10 under 35 U.S.C. 102(e) over Nishikawa (U.S. Patent No. 6,836,565), "Nishikawa", Applicant's Representative submits that Nishikawa fails to teach the newly amended limitations of claims 4 and 10. In summary, Applicant's Representative submits that the newly amended claims require a first information extractor to extract information related to image

processing of the image data from a tag region of an image file according to a first extraction method, and a second information extractor to extract the information located within the image data of the image file according to a second extraction method. In line with the discussion regarding claims 1 and 9, the Examiner respectfully insists that Nishikawa teaches such limitations. It appears as though the heart of this interpretive disagreement lies at the interpretation of the generic term "extracting". Nishikawa teaches that if a gamma correction tag can be found in the image data, the correction using the gamma correction tag is used (Nishikawa Col. 7 lines 57 – 60). This clearly corresponds to the first information extractor of the present claims. Nishikawa further teaches that if the gamma correction tag cannot be used, the reduced image data is used to determine the gamma correction value. In other words, as an alternative way of extracting the *same* gamma correction value used for the *same* gamma correction, the reduce image data is used. This clearly corresponds to a second information extractor if one interprets the steps of: getting the reduced image data and using it to determine a gamma correction value, as information extracting. Applicant's Representative further submits that because the gamma correction value must be generated, it is not located within the image data of the image file, as required by the claims. However, the since the reduced image data is a form of image data, it is actually within the image data of the image file (Nishikawa Fig. 4B). Therefore, the examiner respectfully insists that Nishikawa does teach a first information extractor to extract information from a tag, and a

second information extractor, to extract information from within the image data of the image file as required by claims 4 and 10.

c. Regarding claim 11, it recites the limitations of claims 1 and 4 such that the above arguments also apply.

d. In the remainder of page 8 of the Remarks, with regards to the rejection of the dependent claims 2 and 5 under 35 U.S.C. 103 over Nishikawa in view of Rhoads (U.S. Pg Pub 2003/0048922), "Rhoads", and Anglin et al. (U.S. Pug Pub 2003/0032033), "Anglin", Applicant's Representative argues that Rhoads and Anglin fail to teach or suggest the deficiencies of Nishikawa with regards to the limitations of the respective independent claims. However, as discussed above, the limitations are taught by Nishikawa, such that the additional reference does not need to also teach them in order to establish a prima facie case of obviousness under 35 U.S.C. 103.

e. In page 9 of the Remarks, Applicant's Representative submits that the combination of Nishikawa, Rhoads and Anglin under 35 U.S.C. 103 is improper. Specifically, Applicant's Representative initially notes that Nishikawa retrieves gamma correction values from either a tag or are extracted using a reduced image data. Applicant's Representative additionally notes that Rhoads relates to using watermarks for determining the veracity of header information in a file, and Anglin deals with placing watermark for confirming authenticity and linking produces to associate inter sites. Therefore Applicant's Representative concludes that the combination would change Nishikawa's principle of operation

as it relates to gamma correction. The Examiner respectfully disagrees. As set forth in the previous Office Action, Rhoads and Anglin were introduced to teach embedding and extracting information in both a header and in the form of a watermark. The information that Rhoads and Anglin embedded in the header and watermark combination is not pertinent to the combination with Nishikawa. That is, Nishikawa teaches all the steps involved in generating gamma correction values and inserting it in image data in at least two different ways (a tag and a reduced image data) in case one of the ways is unsuccessful, but simply fails to teach inserting the data in the image as a watermark. Pertinent to the combination, Rhoads and Anglin also teach inserting information in two different ways, into a header and a watermark in case the header information is lost or corrupted. Additionally, although not crucial to this argument, Rhoads teaches that the information encoded in the watermark is related to characteristics of an image. Clearly, one of ordinary skill in the art would have been motivated by *both* sets of references to use the teachings in Rhoads and Anglin to embed the information of Nishikawa, while being well aware to change the *content* of the watermark to the necessary data.

Given this reasonable interpretation of the claims and the prior art, the examiner respectfully insists that the standing rejections of claims 1, 3, 4, 6, 7, 9, 10 and 11 under 35 U.S.C. 102 and 2 and 5 under 35 U.S.C. 103 are proper.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 3, 4, 6, 7, 8, 9, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishikawa (U.S. Patent No. 6,836,565).
 - a. Regarding claims 1 and 9, Nishikawa teaches an image processing apparatus comprising: a first information addition unit to add (**Fig. 11 element 28**), to image data, information related to perform a first type of image processing of the image data according to a first addition method as first information (**Col. 4 lines 17 – 19 and lines 26 – 30**) [**Note that the first type of image processing is gamma correcting**]; and a second information addition unit (**Fig. 6 element 61**) to add the information to the image data according to a second addition method different from the first information addition method as second information related to perform the first type of image processing of the image data (**Col. 6 lines 27 – 36**) [**Note that the same reduced image data as generated above is included**], wherein at least one of the first and the second information added is not lost even when an image processing is performed with respect to the image data (**Col. 4 lines 55 – 61**) [**Note that the information can be obtained even if the format is changed**]. [**Note that although the first and second embodiments have been referred to, it is the third embodiment, which**

combines the two but does not repeat the specifications of each, that is most pertinent. See Col. 7 lines 58 – 67.]

b. Regarding claim 3, Nishikawa teaches the image processing apparatus according to claim 1, wherein the first information addition unit adds the information to the image data as a tag **(Col. 6 lines 46 – 51)**, and the second information addition unit embeds the information in the image data as a specific pattern **(Col. 4 lines 1 – 10) [Note that reduced image can be an outline, thumbnail, etc which are pixel patterns specific to the image].**

c. Regarding claims 4 and 10, Nishikawa teaches an image processing apparatus comprising: a first information extractor to extract from a tag region of an image file, **(Fig. 11 – “Gamma Correction Value Tag”) [Note that although not explicitly shown, clearly, the reduce image data has to be extracted from the image in the memory]**, information represented as a value related to image processing of image data of the image file according to a first extraction method **(Col. 7 lines 57 – 60)**; a second information extractor **(Fig. 2 – “Reduced Image Data”)** to extract the information represented as the value located within the image data of the image file according to a second extraction method different from the first extraction method **(Col. 5 lines 63 – 67) [Note that the reduced image data is used to extract a gamma correction value]**, when the information cannot be extracted by the first information extractor **(Col. 7 lines 57 – 63)**; and an image processing unit to perform the image processing

based on the information extracted by one of the first information extractor and the second information extractor (**Fig. 2 or 11 element 24**).

d. Regarding claim 6, Nishikawa teaches the image processing apparatus according to claim 4, wherein the first information extractor is operable to extract the information from a tag that has been added to the image data (**Col. 6 lines 46 – 51**), and the second information extractor is operable to extract the information from a specific pattern that has been added to the image data (**Col. 4 lines 1 – 10**) [**Note that reduced image can be an outline, thumbnail, etc which are pixel patterns specific to the image**].

e. Regarding claims 7 and 8, Nishikawa teaches the image processing apparatus according to claim 4, further comprising a third information extractor to extract image characteristics from the image data when the information cannot be extracted by the first information extractor and the second information extractor (**Col. 7 lines 63 – 65**), wherein the image processing unit is operable to perform the image processing based on the image characteristics extracted (**Fig. 2 or 11 element 24**).

f. Regarding claim 11, Nishikawa teaches an image processing system comprising an image input apparatus (**Fig. 1 element 10**) and an image output apparatus (**Fig. 1 element 15**), wherein the image input apparatus includes: a first information addition unit to add (**Fig. 11 element 28**), to image data, information related to image processing of the image data according to a first addition method as first information (**Col. 6 lines 27 – 36**); and a second

information addition unit (**Fig. 6 element 61**) to add the information to the image data according to a second addition method different from the first information addition method as second information (**Col. 4 lines 17 – 19 and lines 26 – 30**) **[Note that the same reduced image data as generated above is included]**, wherein at least one of the first and the second information added is not lost even when an image processing is performed with respect to the image data (**Col. 4 lines 55 – 61**) **[Note that the information can be obtained even if the format is changed]**. **[Note that although the first and second embodiments have been referred to, it is the third embodiment, which combines the two but does not repeat the specifications of each, that is most pertinent. See Col. 7 lines 58 – 67.]**, and the image output apparatus includes: a first information extractor to extract (**Fig. 11 – “Gamma Correction Value Tag”**) **[Note that although not explicitly shown, clearly, the reduce image data has to be extracted from the image in the memory]**, from image data, information related to image processing of the image data according to a first extraction method; a second information extractor (**Fig. 2 – “Reduced Image Data”**) to extract the information from the image data according to a second extraction method different from the first extraction method (**Col. 5 lines 63 – 67**), when the information cannot be extracted by the first information extractor (**Col. 7 lines 58 – 63**); and an image processing unit to perform the image processing based on the information extracted by one of the first information extractor and the second information extractor (**Fig. 2 or 11 element 24**).

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa (U.S. Patent No. 6,836,565) in view of Rhoads (U.S. Pg Pub 2003/0048922) and Anglin (U.S. Pg Pub 2003/0032033). Hereinafter referred to as Nishikawa, Rhoads and Anglin respectively.
 - a. Regarding claims 2 and 5, Nishikawa teaches all the limitations of the independent claims 1 and 4, respectively, as set forth in the 102 rejection of claims 1 and 4 above. Nishikawa also teaches that the first information addition and extraction units add and extract the information to the image data as a tag **(Nishikawa Col. 6 lines 46 – 51)**. However, although Nishikawa also suggests adding the correction parameters to the inside of the image to be corrected **(Nishikawa Col. 8 lines 32 – 34)**, **Nishikawa fails to teach** that the second information addition/extraction unit embeds/extracts the information in the image data as/from an electronic watermark. **Pertaining to the same field of endeavor, Rhoads teaches encoding data relating to exposure information in an image using watermarks (Rhoads – abstract lines 1 and 2). More importantly, Rhoads teaches the concept of “header verification”, in which data contained in the header is repeated in a watermarked pattern**

embedded within the image (Rhoads PP 0322). Anglin, which incorporates Rhoads by reference, teaches that by including redundant representation of information in both header and content watermark, corrupted or lost header data can be retrieved from the watermark (Anglin PP 0140 - 0141). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to embed Nishikawa's gamma correction value (or the reduced image data used to derive it), currently stored only in the image header, in the image itself as a watermark. By using a robust watermark, the correction information can be successfully retrieved even when abusers or other processing alter the information content of the less robust header (Rhoads PP 00322).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. NEWMAN whose telephone number is (571)270-3016. The examiner can normally be reached on Mon - Thurs from 9:30am to 6:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir A. Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2624

M.A.N.

/Samir A. Ahmed/

Supervisory Patent Examiner, Art Unit 2624